

Abstract of the Disclosure

An image sensor array includes image sensors having photo TFTs to generate photocurrent in response to received images. The photo TFTs each have their respective gate electrodes and source electrodes independently biased to reduce the effects of dark current. Storage capacitors are coupled to each photo TFT and discharged upon generation of a photocurrent. Each storage capacitor is coupled to a readout TFT that passes a current from the storage capacitor to a data line. The photo TFT may be disposed above the storage capacitor to increase the exposed surface area of the photo TFT.